

mn 92-54

ORIGINAL
FILE

February 24, 1992

RECEIVED

FEB 25 1992

Federal Communications Commission
Office of the Secretary

Donna R. Searcy
Secretary
Federal Communications Commission
Room 222
1919 M Street, N.W.
Washington, D.C. 20554

Rm 7937

RE: Amendment of FM Table of Allotment
Ch. 229A - North Madison, Ohio

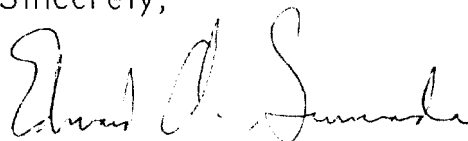
Dear Ms. Searcy:

Please let this letter and engineering exhibit (original & four copies) serve as a request to amend the FM Table of Allotments, Section 73.202, to add FM Channel 229A (93.7 MHz) to the community of North Madison, Ohio. North Madison has no local aural service licensed to it.

The community of North Madison is located in Madison Township of Lake County Ohio and according to the 1990 census North Madison has a population of 8,699 persons. The attached engineering exhibit by Mullaney Engineering indicates the allotment complies with the domestic spacing rules but requires processing under the Canadian FM Agreement as a specially negotiated short spaced allotment.

The address stated below is our current address and should the channel be allotted to North Madison we will promptly file an application.

Sincerely,



Edward A. Sumrada
Lakeshore Broadcasting
2634 River Road
Willoughby Hills, OH 44094
(216) 942-6988

encl - Engineering Exhibit

JOHN J. MULLANEY
JOHN H. MULLANEY, P.E.

MULLANEY ENGINEERING, INC.

9049 SHADY GROVE COURT
GAITHERSBURG, MD 20877

301 921-0115

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FEB 25 1992

Federal Communications Commission
Office of the Secretary

Rm-7937

ENGINEERING EXHIBIT EE:

**LAKESHORE BROADCASTING
NORTH MADISON, OHIO
ALLOTMENT OF FM CHANNEL 229A**

FEBRUARY 19, 1992

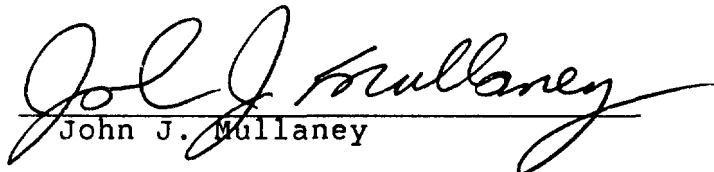
**ENGINEERING STATEMENT IN SUPPORT OF A
PETITION FOR RULE MAKING
TO AMEND
THE FM TABLE OF ASSIGNMENTS**

MULLANEY ENGINEERING, INC.

DECLARATION

I, John J. Mullaney, declare and state that I am a graduate electrical engineer with a B.E.E. and my qualifications are known to the Federal Communications Commission, and that I am an engineer in the firm of Mullaney Engineering, Inc., and that firm has been retained by Lakeshore Broadcasting to prepare an engineering statement in support of a Petition to Amend the FM Table of Assignments.

All facts contained herein are true of my own knowledge except where stated to be on information or belief, and as to those facts, I believe them to be true. I declare under penalty of perjury that the foregoing is true and correct.


John J. Mullaney

Executed on the 19th day of February 1992.

MULLANEY ENGINEERING, INC.

ENGINEERING EXHIBIT EE:

**LAKESHORE BROADCASTING
NORTH MADISON, OHIO
ALLOTMENT OF FM CHANNEL 229A**

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ENGINEERING EXHIBIT EE:

LAKESHORE BROADCASTING
NORTH MADISON, OHIO
ALLOTMENT OF FM CHANNEL 229A

NARRATIVE STATEMENT:

I. GENERAL:

This engineering statement has been prepared on behalf of Lakeshore Broadcasting. The purpose of this statement is to support a request that the FM Table of Assignments be amended to add Ch. 229A at North Madison, Ohio. Located in Madison Township of Lake County Ohio, North Madison has a 1990 population of 8,699 persons. The proposed allotment is in full compliance with the domestic spacing rules.

It should be noted that the area in question is within 320 kilometers (200 miles) of a U.S. Border and, therefore, foreign concurrence (Canadian) is required. In fact, the allotment of 229A requires processing as a specially negotiated short spaced Class A 6 KW allotment with respect to Canada.

II. ENGINEERING DISCUSSION:

A. Proposed Site:

Because of required separations and FAA constraints, Lake Shore requests that the FCC establish a special reference point for the allocation. The following geographic coordinates are for a hypothetical site

which is 9 kilometers west-southwest of North Madison, Ohio:

Latitude: 41° 47' 31"

Longitude: 81° 09' 41"

The hypothetical site will provide an unobstructed view of the City of License, North Madison, Ohio and is located close enough to serve the entire Community with the required 3.16 mV/M contour. Figures 3 & 3-A are a 1:250,000 map and tabulation which illustrates the city grade coverage that can be expected from the proposed reference site assuming maximum facilities (6 KW at 100 meters). As can be seen, complete coverage of the city is possible.

B. Channel Allocation Study:

Figure 1 is a Channel Allocation Study from the Special Reference Point proposed herein which indicates the required separation in kilometers to all known Licenses, Construction Permits, Open Allocations, pending Applications, and pending Rule Makings.

From this study it can be determined that the proposed special reference point exceeds all of the minimum domestic separations. It should be noted that the proposed reference point is short spaced by 4 kilometers to a pending application (BPH910628MC) which is MX with the renewal of WBZZ on 229B at Pittsburgh, PA. However, FCC policy states that this application represents a mere site preference. In addition, it should be noted that the minor short spacings to WZAK & WBZZ are within the 0.5 KM tolerance provided for in the rules.

Canadian wise, the new channel will be short spaced to CBCL on 228C1 at London, Ontario and to CKLW on 230C1 at Windsor, Ontario. Since the 6 KW power being requested exceeds that currently allowed for a Class A under the U.S./Canadian agreement, the B1 spacing of 181 kilometers has been used as an initial guide. However, a B1 would be operating with over four times the power being requested for North Madison. In accordance with the treaty, first adjacent FM operations are provided a -6 dB Undesired to Desired (U/D) ratio with respect to the protected 54 dBu contour. Assuming maximum Class C1 facilities, the interfering 48 dBu F5010 contour extends a distance of 130 kilometers while the protected 54 dBu F5050 contour extends a distance of 86.4 kilometers. Figure 4-A provides distances to the protected and interfering contours for the proposed North Madison facility. Figure 4 is a map illustrating the interfering ("dashed") and protected ("solid") contours from the two Canadian Class C1 stations as well as from the proposed 6 KW Class A facility at North Madison (all based upon maximum facilities). As can be seen, while the interfering contour from the North Madison facility does overlap the protected contour of CBCL, the overlap is entirely over water. Consequently, no objectional interference exists. CKCL receives no overlap from the North Madison facility. Similarly, the North Madison facility receives only a very minor amount of interference (in community of North Kingsville) from CBCL. However, this is based upon a protected contour of 54 dBu where as the domestic U.S. rules only protect a Class A facility to the 60 dBu contour (which is totally without interference).

Figure 2 is a topographic map which illustrates the domestic spacing restrictions and the resulting area in which the tower site must be located. The area is more than sufficient to establish a tower site.

C. Public Interest Showing:

The allotment of 229A will provide a first local service to 8,699 persons located in North Madison. From the hypothetical reference point the population served within the 60 dBu contour will be 206,780 persons based upon the 1990 Census.

Based upon the above reasons Lake Shore believes that the requested channel allotment is in the Public Interest and therefore, should be granted by the Commission.

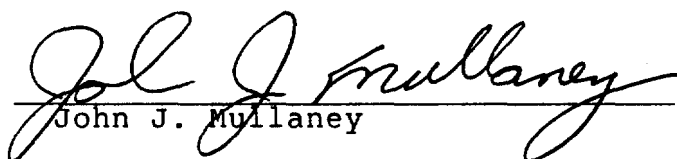
III. SUMMARY:

Lakeshore Broadcasting requests that the FM Table of Assignments be amended to add FM Channel 229A at North Madison, Ohio as a specially negotiated allotment.

City	Present	Proposed
North Madison, Ohio	-	229A

Should the Commission allot a channel to North Madison, Lakeshore will promptly file an application for construction permit.

February 19, 1992.


John J. Mullaney

***** FM CHANNEL STUDY NO. 1 - MULLANEY ENGINEERING, INC. GAITHERSBURG, MARYLAND - 20-JAN-92 13:58:33 *****
 ***** LAST UPDATE: 920117 *****

NEW 229 A FM POLARIZATION ERP (KW) HAAT RCAMSL
 NORTH MADISON OH US HOR PLN BM TILT (METER) (METER)
 41.4731 81.0941 (D.MSS) HORIZONTAL 6.000 0.000 100.0
 VERTICAL 6.000 0.000 100.0

 THE CANADIAN BORDER IS 45.3 KM ON A BEARING OF 328.3 DEG. TRUE

AZIMUTH		CALL	STS	FILE NUMBER	CITY	ST C	LAT (D.MSS)	LONG	REL CHN	ERP (KW)		HAAT D (M)	3 KW SPACING (KM)	INTE (KM)		PROT RSEP (KM)	REZLT IR IC (KM)
FROM	TO									HORZ	VERT			DIST	RSEP		
214.2	33.9	WZAK	LIC	BLH4273	Cleveland OH A	41.1650	81.3722	3RD 226B	27.5H27.5V	189		68.6	69.				s
151.4	331.8	WBBG	LIC	BLH831024AC	Youndstow OH A	41.0450	80.3854	2ND 227B	50.H 50.V	85		89.9	69.				
353.0	172.9	CBCLFM	OPE		London ON C	42.5720	81.2120	1ST 228C1	100.H100.V	216	164	130.2	181.				S-CA
COMMENTSPECIAL NEGOTIATED SHORT-SPACED ALLOCATION.																	
147.3	328.0	WBZZ	LIC	BLH6784	Pittsburg PA A	40.2628	80.0132	CO 229B	41.H 41.V	168		177.8	178.				s
145.7	326.5	NEW	APP	BPH910628MC	Pittsburg PA A	40.2949	80.0017	CO 229B	44.H 44.V	158D		173.5	178.				S-MX
CUT-OFF DATE = 12/06/91 **COMMENTMX WITH RENEWAL OF WBZZ-AMENDED 910830																	
148.1	328.8	NEW	APP	BPH910701ME	Pittsburg PA A	40.2454	80.0220	CO 229B	23.0H23.0V	220D		179.7	178.				CLOSE
215.2	34.3	WDIO	LIC	BLH870625KB	Mount Ver OH A	40.2418	82.2620	CO 229B	37.H 37.V	172		187.7	178.				
286.2	105.0	CKLWFM	OPE		Windsor ON C	42.1015	82.5929	1ST 230C1	100.H100.V	200D	164	157.4	181.				S-CA
COMMENTSPECIAL NEGOTIATED SHORT-SPACED ALLOCATION																	
187.6	7.5	WHBCFM	LIC	BLH861027KC	Canton OH A	40.5353	81.1907	2ND 231B	45.H 45.V	157		100.1	69.				
309.1	128.4	VAC			Chatham ON C	42.2400	82.1100	3RD 232B	H V			108.2	71.				
COMMENTSPECIAL NEGOTIATED SHORT-SPACED ALLOCATION.																	

s - OK, WITHIN 0.5 KM TOLERANCE PERMITTED BY RULES
 S-MX - USE OF CH. 229A IS IN CONFLICT WITH THIS PENDING APPLICATION.
 S-CA - SHORT SPACED TO CANADA

CANADIAN SPACINGS: 3 KW 164 KM (6 KW 169 KM)
 25 KW 178 KM

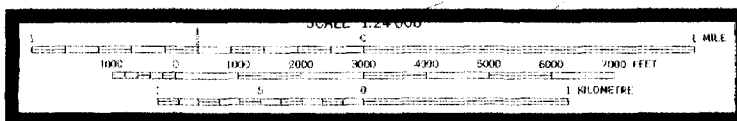
FEBRUARY 1992

**MULLANEY ENGINEERING, INC.
 GAITHERSBURG, MARYLAND**

**FIGURE 1
 CHANNEL ALLOCATION STUDY**

**LAKE SHORE BROADCASTING
 NORTH MADISON, OHIO
 ALLOTMENT OF FM CHANNEL 229A**

177.5 KM FROM
APP(MX) CH. 229B
PITTSBURGH, PA



68.5 KM FROM
WZAK CH. 226B
CLEVELAND, OH

ALLOWABLE SITE AREA

177.5 KM FROM
WBZZ CH. 229B
PITTSBURGH, PA

REFERENCE SITE

NOTE:

**1. ENTIRE PLOT AREA IS
SHORT-SPACED TO:**

CBCL-FM CH. 228C1
LONDON, ON, CANADA
REQUIRED: 181 KM

CKLW-FM CH. 230C1
WINDSOR, ON, CANADA
REQUIRED: 181 KM

**REQUEST FOR SPECIALLY
NEGOTIATED SHORT-SPACED
ALLOTMENT TO BOTH STATIONS**

**2. ENTIRE ALLOWABLE
AREA MX WITH:**

BPH910628MC
APP(MX) CH. 229B
PITTSBURGH, PA

FEBRUARY 1992

**MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND**

**FIGURE 2
ALLOWABLE SITE AREA**

**LAKESHORE BROADCASTING
NORTH MADISON, OHIO
ALLOTMENT OF FM CHANNEL 229A**

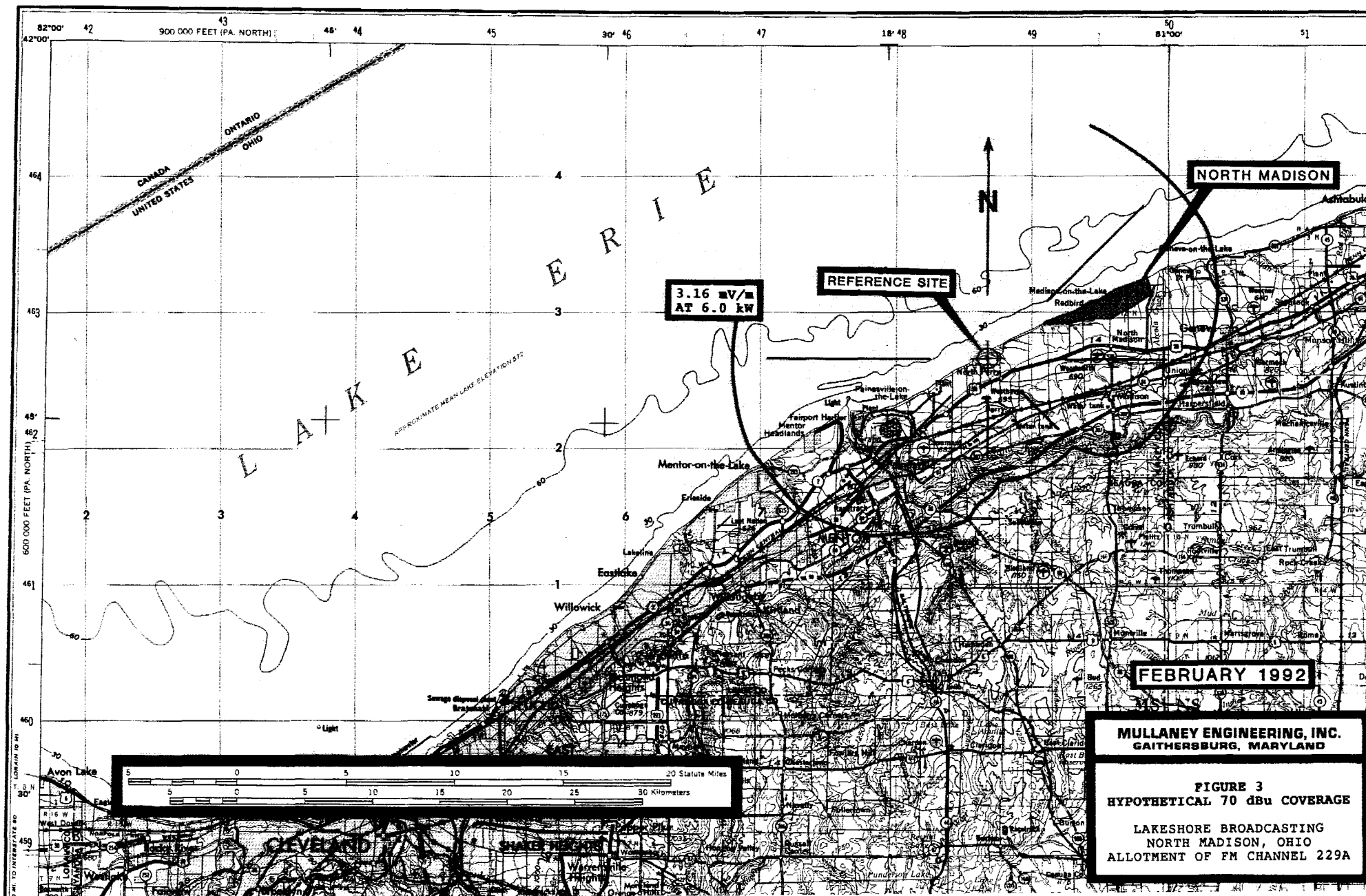
ROAD CLASSIFICATION

Medium-duty ——— Light-duty ———
Unimproved dirt ———
U.S. Route ——— State Route ———

PERRY, OHIO

N4145-W8107.5/7.5

1960
PHOTOREVISED 1979
AMS 4767 I SW-SERIES V852



FM COVERAGE

PROPOSED RULE MAKING

CHANNEL NO. 229 A FREQUENCY 93.7 MHZ

CENTER OF RADIATION 302.1 METERS AMSL

COORDINATES: 41-47-31 / 81-09-41

BEARING DEGREES *****		3-16 KM AVERAGE *****	C.R. HAAT *****	E.R.P. (KW) *****	DISTANCE TO CONTOURS (KM) 70.0 *****
0.	*	170.7	131.4	6.	18.7
15.		170.7	131.4	6.	18.7
30.		170.7	131.4	6.	18.7
45.	*	170.7	131.4	6.	18.7
60.		173.5	128.6	6.	18.5
75.		189.0	113.1	6.	17.4
90.	*	207.7	94.4	6.	15.6
105.		227.1	75.0	6.	13.8
120.		240.2	61.9	6.	12.7
135.	*	268.8	33.3	6.	9.33
150.		283.5	18.6	D 6.	9.01
165.		270.5	31.6	6.	9.17
180.	*	263.2	38.9	6.	10.1
195.		238.3	63.8	6.	12.9
210.		214.3	87.8	6.	15.0
225.	*	194.2	107.9	6.	16.9
240.		181.9	120.2	6.	17.9
255.		170.7	131.4	6.	18.7
270.	*	170.7	131.4	6.	18.7
285.		170.7	131.4	6.	18.7
300.		170.7	131.4	6.	18.7
315.	*	170.7	131.4	6.	18.7
330.		170.7	131.4	6.	18.7
345.		170.7	131.4	6.	18.7
AVERAGE (8) * 202.1 100.0 Meters					
AREA IN SQUARE KILOMETERS					830.

**MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND**

**FIGURE 3-A
HYPOTHETICAL 70 dBu CONTOUR**

LAKESHORE BROADCASTING
NORTH MADISON, OHIO
ALLOTMENT OF FM CHANNEL 229A

**NOTE:
EXCEPT WHERE NOTED, ALL
UNDESIRABLE OVERLAP AND
RESULTING INTERFERENCE
OCCURS OVER LAKE ERIE.**

**CKLW-FM CH. 230C1
WINDSOR, ON, CANADA**

**CBCL-FM CH. 228C1
LONDON, ON, CANADA**

**54 dBu (F5050)
48 dBu (F5010)**

INTERFERENCE

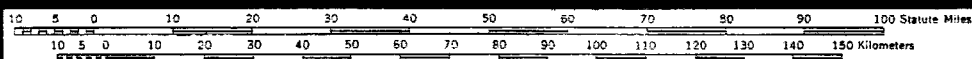
FEBRUARY 1992

**PRM CH. 229A
N. MADISON, OH**

**MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND**

**FIGURE 4
ALLOCATION TO CANADA**

**LAKEHORE BROADCASTING
NORTH MADISON, OHIO
ALLOTMENT OF FM CHANNEL 229A**



FM COVERAGE

PROPOSED RULE MAKING

CHANNEL NO. 229 A FREQUENCY 93.7 MHZ

CENTER OF RADIATION 302.1 METERS AMSL

COORDINATES: 41-47-31 / 81-09-41

BEARING DEGREES *****		3-16 KM AVERAGE *****	C.R. HAAT *****	E.R.P. (KW) *****	DISTANCE TO CONTOURS (KM)		
					60.0	54.0	48.0
0.	*	170.7	131.4	6.	32.0	43.1	65.0
15.		170.7	131.4	6.	32.0	43.1	65.0
30.		170.7	131.4	6.	32.0	43.1	65.0
45.	*	170.7	131.4	6.	32.0	43.1	65.0
60.		173.5	128.6	6.	31.7	42.8	64.5
75.		189.0	113.1	6.	29.9	40.7	62.0
90.	*	207.7	94.4	6.	27.5	37.8	58.6
105.		227.1	75.0	6.	24.8	34.0	54.4
120.		240.2	61.9	6.	22.7	31.1	50.7
135.	*	268.8	33.3	6.	16.6	23.5	37.0
150.		283.5	18.6	D 6.	15.9	22.5	35.4
165.		270.5	31.6	6.	16.1	22.9	36.0
180.	*	263.2	38.9	6.	18.0	25.1	40.2
195.		238.3	63.8	6.	23.0	31.5	51.3
210.		214.3	87.8	6.	26.6	36.5	57.3
225.	*	194.2	107.9	6.	29.3	39.9	61.0
240.		181.9	120.2	6.	30.7	41.7	63.1
255.		170.7	131.4	6.	32.0	43.1	65.0
270.	*	170.7	131.4	6.	32.0	43.1	65.0
285.		170.7	131.4	6.	32.0	43.1	65.0
300.		170.7	131.4	6.	32.0	43.1	65.0
315.	*	170.7	131.4	6.	32.0	43.1	65.0
330.		170.7	131.4	6.	32.0	43.1	65.0
345.		170.7	131.4	6.	32.0	43.1	65.0

AVERAGE (8) * 202.1 100.0 Meters

AREA IN SQUARE KILOMETERS 2481. 4573. 10622.

48.0 DBU CONTOUR IS BASED ON F(50,10) CURVE

**MULLANEY ENGINEERING, INC.
GAITHERSBURG, MARYLAND**

**FIGURE 4-A
HYPOTHETICAL CONTOURS**

**LAKESHORE BROADCASTING
NORTH MADISON, OHIO
ALLOTMENT OF FM CHANNEL 229A**